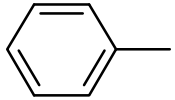
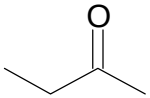
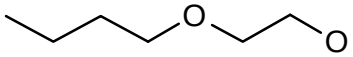
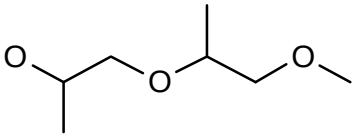
US EPA Design for the Environment
Formulator Initiative

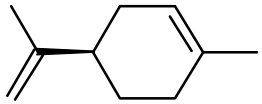
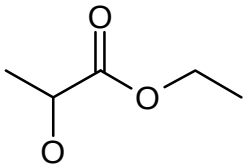
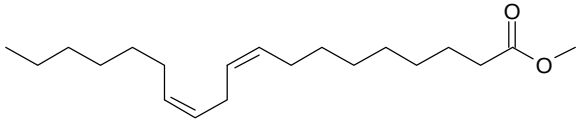
Selected Properties for:

Representative Solvents

Positive Environmental Profile: Low health and environmental concerns.

Name CAS Number	Structure	Kauri-butanol value [a]	Other Concerns and Comments
Toluene 108-88-3		105	Causes CNS, kidney, and possible liver damage. Teratogenic and possibly fetotoxic. Included on the Hazardous Air Pollutants (HAP) list and the Toxics Release Inventory (TRI).
Methyl ethyl ketone 78-93-3			Included on the HAP list and the TRI.
2-Butoxyethanol 111-76-2			Affects blood, CNS, kidney and liver. Included on the HAP list.
Dipropylene glycol methyl ether 10324-32-7			Not included on the HAP list. Less toxic than ethylene glycol ethers. More positive environmental profile.

Representative Solvents

Name CAS Number	Structure	Kauri-butanol value[a]	Other Concerns and Comments
D-Limonene 5989-27-5		56	Highly toxic to fish. Spontaneously formed air-oxidation products (limonene oxide, carveal) are potent skin sensitizers. [b]
Ethyl lactate 97-64-3		>1000	Readily biodegradable. Not included on the HAP or TRI lists. More positive environmental profile.
Methyl soyate 67762-38-3		58	Readily biodegradable. Not included on the HAP or TRI lists. More positive environmental profile.

a. The Kauri-butanol value is a measure of solvent power originally developed for aromatic hydrocarbons. The value is a measure of the volume of test solvent required to produce turbidity in a standard solution containing kauri gum in butanol.

b. Karlberg, A.T., et al., **1992**, *Contact Dermatitis, 26:5*, 332-40, cited in the Hazardous Substance Databank, National Library of Medicine, 2000.